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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,030	10/26/2001	Hong-Goo Kang	2000-0588	5014

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Samuel H. Dworetsky
AT&T Corp.
P.O. Box 4110
Middletown, NJ 07748-4110

EXAMINER

CHAWAN, VIJAY B

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/002,030	Applicant(s) KANG ET AL.	
	Examiner Vijay B. Chawan	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: in line 3 of the claim, "determining modified", there appears to be a word missing, "signal" perhaps. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Gao et al., (6,850,884).

As per claim 1, Gao et al., teach a method for mitigating errors in frames of a received communication, comprising:

modifying said received communication for determining a reference signal (Fig.5, Col.13, line 22 – Col.20, line 40);

modifying said received communication for determining a modified reference signal (Fig.5, Col.13, line 22 – Col.20, line 40); and

adjusting an adaptive codebook gain parameter for an adaptive codebook and a fixed codebook gain based on a difference between the reference signal and the modified reference signal (Fig.5, Col.13, line 22 – Col.20, line 40).

As per claim 2, Gao et al., teach a method according to claim 1, wherein the reference signal is determined based on transmitting parameters of the received communication (Fig.5, Col.13, line 22 – Col.20, line 40).

As per claim 3, Gao et al., teach a method according to claim 2, wherein the transmitting parameter includes at least a long-term prediction lag, fixed codebook, adaptive codebook gain vector g_p , fixed codebook gain vector g_c , and linear prediction coefficients $A(z)$ (Fig.5, Col.13, line 22 – Col.20, line 40).

As per claim 4, Gao et al., teach a method according to claim 2, wherein the reference signal is determined by adding an adaptive codebook vector with a fixed codebook vector to form an excitation signal and passing the excitation signal through a synthesis filter (Fig.5, Col.13, line 22 – Col.20, line 40).

As per claim 5, Gao et al., teach a method according to claim 4, wherein the adaptive codebook vector is amplified by an adaptive codebook gain vector g_p and the fixed codebook vector is amplified by a fixed codebook gain vector g_c prior to being added together to form the excitation signal (Fig.5, Col.13, line 22 – Col.20, line 40).

As per claim 6, Gao et al., teach a method according to claim 3, wherein the reference signal is determined by adding an adaptive codebook vector with a fixed

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codebook vector to form an excitation signal, and passing the excitation signal through a synthesis filter (Fig.5, Col.13, line 22 – Col.20, line 40).

As per claim 7, Gao et al., teach a method according to claim 6, wherein the adaptive codebook vector is based on at least the long-term prediction lag and the fixed codebook vector is based on the fixed codebook (Fig.5, Col.13, line 22 – Col.20, line 40).

As per claim 8, Gao et al., teach a method according to claim 7, wherein the adaptive codebook vector is amplified by an adaptive codebook gain vector g_p and the fixed codebook vector is amplified by a fixed codebook gain vector g_c prior to being added together to form the excitation signal (Fig.5, Col.13, line 22 – Col.20, line 40).

As per claim 9, Gao et al., teach a method according to claim 8, wherein the difference between the reference signal and the modified reference signal is based on a mean squared error between the reference signal and the modified reference signal (Fig.5, Col.13, line 22 – Col.20, line 40).

As per claim 10, Gao et al., teach a method according to claim 9, wherein the difference between the reference signal and the modified reference signal is based on the mean squared error between the error signal and the modified reference signal, wherein the difference is minimized (Fig.5, Col.13, line 22 – Col.20, line 40).

As per claim 11, Gao et al teach the method according to claim 10, wherein the difference between the reference signal and the modified reference signal is minimized according to the equation, where N_s is a subframe size and $h(n)$ is an impulse response corresponding to $1/A(z)$ (Fig.5, Col.13, line 22 – Col.20, line 40).

Claims 12-22 are apparatus claims directed toward implementing the method of claims 1-11, with similar in scope and content, and are rejected under similar rationale.

Response to Arguments

4. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (571) 272-7601. The examiner can normally be reached on Monday Through Friday 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Vijay B. Chawan
Primary Examiner
Art Unit 2654

vbc
8/6/06

**VIJAY CHAWAN
PRIMARY EXAMINER**